

REMARKS

Reconsideration and allowance of the present application based on the following remarks and amendments are respectfully requested.

Claim 9 is amended. After entry of this amendment, claims 9-13 will remain pending in the patent application.

Entry of the Amendment is proper under 37 C.F.R. §1.116 as the amendments: (a) place the application in condition for allowance for the reasons discussed herein; (b) do not present any new issues that would require further consideration and/or search as the amendments merely amplify issues discussed throughout the prosecution; (c) do not present any additional claims without canceling a corresponding number of claims; and (d) place the application in better form for appeal, should an appeal be necessary. Entry of the Amendment is thus respectfully requested.

I. Objection to the Title

The title was objected to. In response, the title "LIGHT-EMISSION DISPLAY PANEL AND METHOD OF MANUFACTURING THE SAME" has been replaced by "LIGHT EMISSION DISPLAY PANEL." It is respectfully submitted that the title, as amended, is clearly indicative of the invention to which the claims are directed. Accordingly, reconsideration and withdrawal of the objection to the title are respectfully requested.

II. Rejection of claims 9-13 under 35 U.S.C. §103(a)

Claims 9-13 were rejected under 35 U.S.C. §103(a) based on Yamada (U.S. Pat. No. 6,246,179) in view of Yudasaka (U.S. Pat. No. 6,380,672). The rejection is respectfully traversed.

Claim 9, as amended, positively recites that the shoulder formed by the hydrophilic portion is covered with the self-light emission layer. It is respectfully submitted that the amendment to claim 9 does not represent new matter. Support for this amendment can be found, for example, in FIGS. 2-4. As explained in the November 24, 2003 Amendment, the structure recited by claim 9 increases the area of the hydrophilic portion of the inner wall. During manufacture of the display panel, a predetermined amount of water-soluble polymer solution is jetted into the opening by an ink jet process to form the light-emission layer. At this time, the polymer solution repelled by the water repellent portion is easily spread on the hydrophilic portion and guided to the light-transmitting electrode. As a result, unevenness in

the thickness of the light-emission layer can be reduced. Since the hydrophilic portion is able to have a satisfactory contact with the light-emission layer, an increase in the area of the hydrophilic portion makes it difficult for the light-emission layer to be removed from the light-transmitting electrode due to the thermal or mechanical stress applied thereto.

Claim 9, as amended, is patentable over Yamada at least because it recites a light-emission display panel comprising, *inter alia*, a self light-emission layer disposed within an opening of an insulating member, the insulating member including a water repellent portion and a hydrophilic portion arranged between the water repellent portion and a light-transmitting electrode and forming a shoulder which protrudes to a position closer to the center of the opening than the water repellent portion and is covered with the self light-emission layer. As conceded in the Office Action and as explained in the November 24th Amendment, Yamada does not describe a light-emission display panel including a hydrophilic portion forming a shoulder protruding to a position closer to a center and a water repellent portion.

The Office Action then alleges that it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the insulating film of Yamada by a double-layered insulating member as allegedly suggested by Yudasaka. Applicants respectfully disagree and submit that in order to establish a *prima facie* case of obviousness, there must be some suggestion or motivation, either in the references themselves or in the knowledge available to one of ordinary skill in the art, to combine the teachings of the references. It is respectfully submitted that the Office Action fails to identify where in the references or in the knowledge available to one of ordinary skill in the art such a motivation or suggestion is provided.

Yudasaka describes a hydrophilic insulating layer (61) associated with a water repellent insulating layer (62). (See FIG. 6c). The insulating layer (61) has a protruding portion closer to the center than the insulating layer (62). However, the protruding portion of the insulating layer (61) is not overlaid by a light-emission semiconductor film (43). The semiconductor film (43) is merely formed in contact with a side edge of the protruding portion. Thus, the protruding portion is not able to reliably prevent removal of the semiconductor film (43) from a transparent pixel electrode (41). Yudasaka specifically points out that deterioration can occur if the upper insulating layer (61) is in contact with the organic light emission layer (43). (See col. 16, lines 29-36). Therefore, Yudasaka clearly emphasizes that it is important that this organic light emission layer (43) does not cover the upper insulating layer (61). By contrast, Yamada discloses that "the emissive element layer

(66)... [is] overlaid on the insulating film (19) and the anode (61) exposed from the opening in the insulating film (19).” (See col. 7, lines 3-6, emphasis added). Clearly, Yamada fails to teach or suggest an emissive element layer (66) that is disposed within the opening of the insulating layer, as recited in claim 9 or described in Yudasaka. To the contrary, it is respectfully submitted that Yamada teaches away from such a configuration. Thus, Yamada clearly states that “by providing such insulating film between the first electrode and the emissive element and/or the second electrode, it is possible to prevent problems occurring at the uneven portion created by the thickness of the first electrode such as disconnection of the overlying emissive element layer of the second electrode, and formation of a short circuit between the first and the second electrodes.” (See col. 3, lines 1-7). Yamada also points out that “the insulating layer covering the peripheral portion of the first electrode reduces concentration of electric field at this peripheral portion, and thereby reduces characteristic deterioration of the overlying emissive element layer.” (See col. 3, lines 7-14). For that very reason, it is respectfully submitted that the references cited in the Office Action teach away from their combination.

Furthermore, it is respectfully submitted that even if it would have been obvious to combine the teachings of the references, the proposed combination would render the invention of Yamada unsatisfactory for its intended purpose. MPEP 2143.01 Thus, in the proposed combination, the light emissive layer 66 would be overlaid on the water repellent layer. It is respectfully submitted that such a configuration will cause (1) deterioration of the light emissive layer 66 (see Yudasaka at col. 16, lines 29-36) and (2) disconnection of the light emissive layer 66 (see specification of the present invention on page 16) because this layer will not remain firmly attached to the water repellent layer. However, the intended purpose of Yamada is to keep the emissive layer 66 connected to the electrodes and the insulating layer 19. (See col. 6, lines 58-66, col. 7, lines 62-67 and col. 8, lines 1-3). Clearly, the intended purpose of preventing any disconnection between the emissive layer 66 and the insulating layer 19 would be contradicted if a water repellent layer was used on the upper portion of insulating layer 19.

For all of these reasons, it is respectfully submitted that it would not have been obvious to combine the teachings of the references. Claims 10-13 are patentable over Yamada, Yudasaka or a combination thereof, by virtue of their dependency from claim 9 and for the additional features recited therein. Accordingly, reconsideration and withdrawal of the rejection of claims 9-13 under 35 U.S.C. §103(a) based on Yamada in view of Yudasaka are respectfully requested.

III. Conclusion

Applicants have addressed all the Examiner's rejections and respectfully submit that the application is in condition for allowance. A notice to that effect is earnestly solicited.

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Respectfully submitted,

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